Ordering number : EN 1052A

Monolithic Linear IC



No.1052A

LA7016

VCR Electronic Switch

Features

- Wide input dynamic range
- Low distortion
- Good frequency characteristic

Maximum Ratings/T_a=25°C

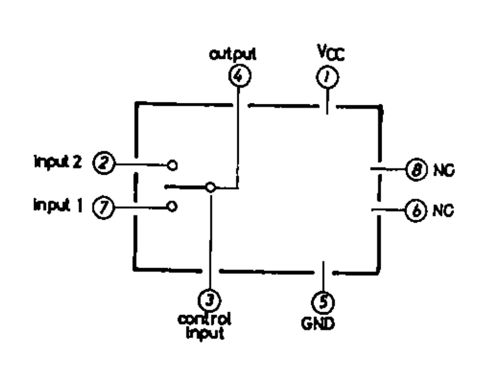
				unit
Maximum supply voltage	V_{CC} max		15	V
Allowable power dissipation	P_d max	$T_a \leqq 65$°C	300	mW
Operating Temperature	Topr		–20 to +65	°C
Storage temperature	T_{stg}		–40 to +125	°C

Operation Characteristics/T_a=25°C, V_{CC}=12V

			min	typ	max	unit
Circuit current	I_D			9.3	12.5	mA
Total Harmonic distortion	THD	*R_g=600Ω, 4.5V_{p-p}, f=1kHz, R_L=∞		0.007	0.1	%
Noise	en	*R_g=600Ω, f=20Hz to 20kHz R_L=∞		–93	–80	dBs
Crosstalk	I_{s1}	*Input A: R_g=50Ω, f=3.58MHz 2V_{p-p}, Input B: R_g=1kΩ	50	68		dB
Pedestal	ΔV_{ped}	V_3=2.2V to 3.0V	–100	0	+100	mV
Second harmonic		R_g=50Ω, f=1MHz, 4.0V_{p-p}, R_L=∞	46	55		dB
Third harmonic		R_g=50Ω, f=1MHz, 4.0V_{p-p}, R_L=∞	46	52		dB
Control, threshold voltage	V_{3s}		2.2	2.6	3.0	V
Pin voltage (pin 4)	V_4			6.9	6.9	V
Pin voltage (pin 7)	V_7	V_3=2.2V		7.6		V
Pin voltage (pin 7)	V_7	V_3=3.0V		7.6		V
Pin voltage (pin 2)	V_2	V_3=3.0V		7.6		V
Pin voltage (pin 2)	V_2	V_3=2.2V		7.6		V

Note) *: Test for input 1 and input 2.
For input 1 test, Vcont (pin 3 voltage) is 2.0V.
For input 2 test, Vcont is 3.0V.

Equivalent Circuit Block Diagram



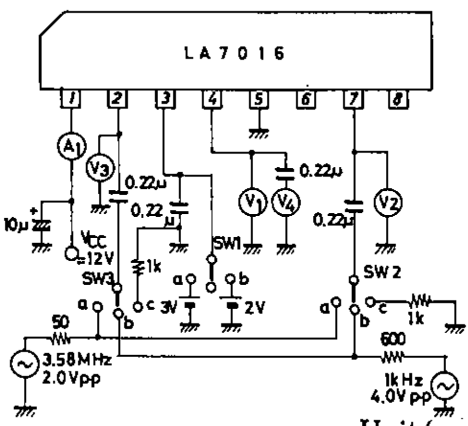
Package Dimensions
(unit : mm)
3016B

22.3
1.5
1.0
0.5 min
4.8
1.35
3.2
0.25
1.3
0.5
2.54
3.0

SANYO : SIP8

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Test Circuit

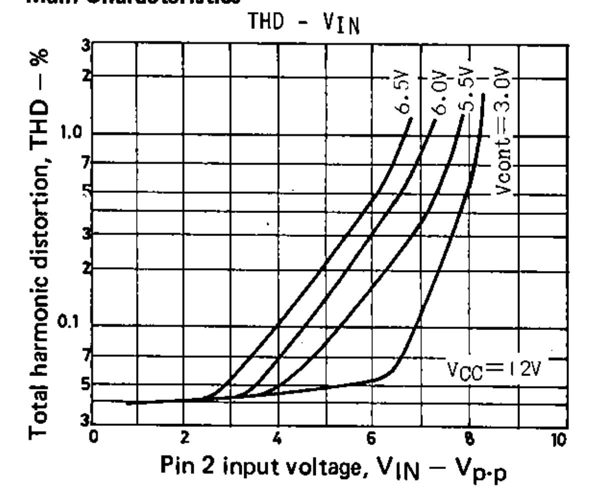


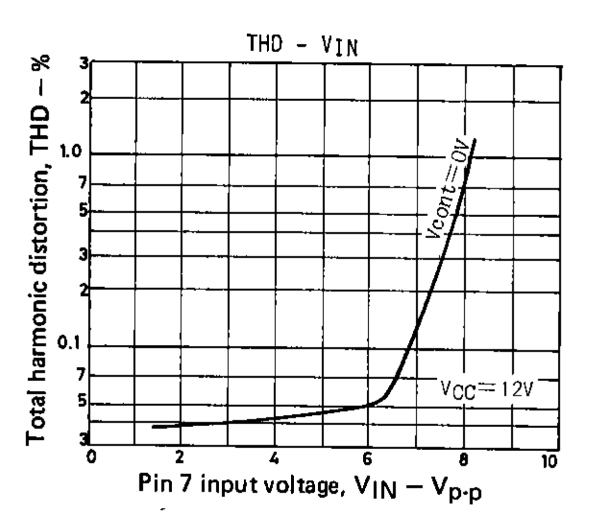
Test Conditions

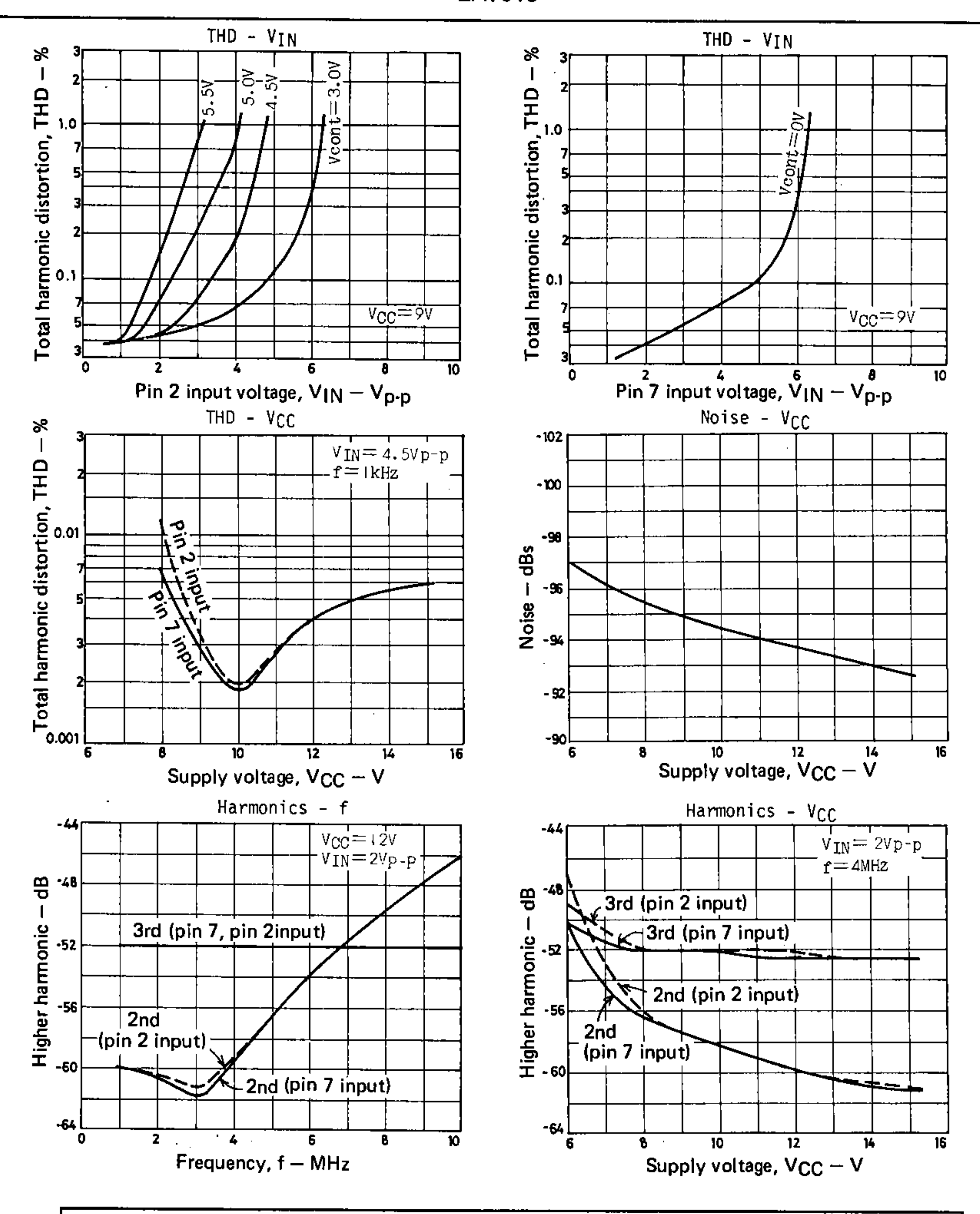
Unit (resistance:Ω, capacitance:F)

Item	Symbol	SW mode			Test point
		SW_1	SW_2	SW_3	
Circuit current	I_D	c	c	c	A_1
Distortion (1)	THD	b	b	c	V_4
Distortion (2)	THD	a	c	b	V_4
Noise (1)	e_n	b	c	c	V_4
Noise (2)	e_n	a	c	c	V_4
Crosstalk (1)	I_{s1}	b	c	a	V_4
Crosstalk (2)	I_{s2}	a	a	c	V_4
Pedestal	ΔV_{PED}	a~b	c	c	V_1
Pin voltage (pin 4)		b	c	c	V_1
Pin voltage (pin 7)		b	c	c	V_2
Pin voltage (pin 7)		a	c	c	V_2
Pin voltage (pin 2)		a	c	c	V_3
Pin voltage (pin 2)		b	c	c	V_3

Main Characteristics







This catalog provides information as of **December, 1996.** Specifications and information herein are subject to change without notice.